

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Smith's Aerospace Components - Wilkes-Barre

Northeastern Pennsylvania Industrial Resource Center

Lean and Set-Up Reduction Success Story

Client Profile:

Smith's Aerospace, located in Wilkes-Barre, Pennsylvania, is a supplier of highly sophisticated precision turbine components used in aircraft and land turbine applications and serving the worlds leading aerospace companies. Their market demands that these parts meet very tight tolerances in order to ensure their final products (jet engines, etc.) perform properly. The unionized facility in Wilkes-Barre employs 145 people.

Situation:

Each year, aerospace companies demanded that their suppliers reduce product prices. As a result of this downward price pressure, Smith's was selling parts at prices as much as 30 percent lower than they were eight years ago. Operating costs were not dropping at the same rate, thus the businesses viability was desperately threatened. Smith's Aerospace had turned to the Northeastern Pennsylvania industrial Resource Center (NEPIRC), a NIST MEP network affiliate, in past years regarding issues ranging from ISO 9000 to workforce development training. Once again, Smith's chose NEPIRC to help them initiate a necessary and intense Lean Initiative Program to ensure the company's future success in the competitive aerospace market.

Solution:

Smith's Lean journey began in 2002 and involved training for all employees in basic Lean 101 Principles of Manufacturing. As the training progressed throughout the plant, select employees received in-depth training in Value Stream Mapping (VSM). These VSM's identified the current state of manufacturing as well as the desired future state of manufacturing for the company. Once the basic Lean tools were established throughout the plant, actions began. Machinery was moved in order to establish work cells, and work procedures were changed to reflect the new layouts and duties. In 2003, NEPIRC provided a group of Smith employees with more in depth train-the-trainer Lean training. This aided the company in training new employees and further assisted them in improving the skills of their current workforce. In addition, Set-up Reduction training and events began and continued throughout 2003 and 2004, thus allowing for improved parts flow and machine capacity. By 2005, Smith's had launched itself into a much different plant. There were now several work cells for different product families. A Lean Champion was put in place to ensure that the plant didn't regress back to old methods. Visual aids were displayed throughout the plant, thus allowing employees up-to-date information on how the business is performing relative to company goals. While a successful journey is never complete, Smith's Aerospace is an example of the impact that Lean Manufacturing can have in strengthening a businesses ability to compete in the toughest of markets.

Results:

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- * Increased sales by over 50 percent, despite constantly falling unit selling prices.
- * Increased per-employee sales by over 50 percent.
- * Doubled gross profit.
- * Increased on-time delivery from 20 to 30 percent range to over 90 percent.
- * Anticipated growth in sales by 35 percent.
- * Allocated significant capital for expansion.

Testimonial:

"NEPIRC's Lean knowledge, training methods, and ability to adapt to our needs were instrumental in helping us implement the changes necessary to achieve success. Training the workforce in Lean principles was critical in helping our employees to accept the changes required for our continued success."

Ron Felix, General Manager